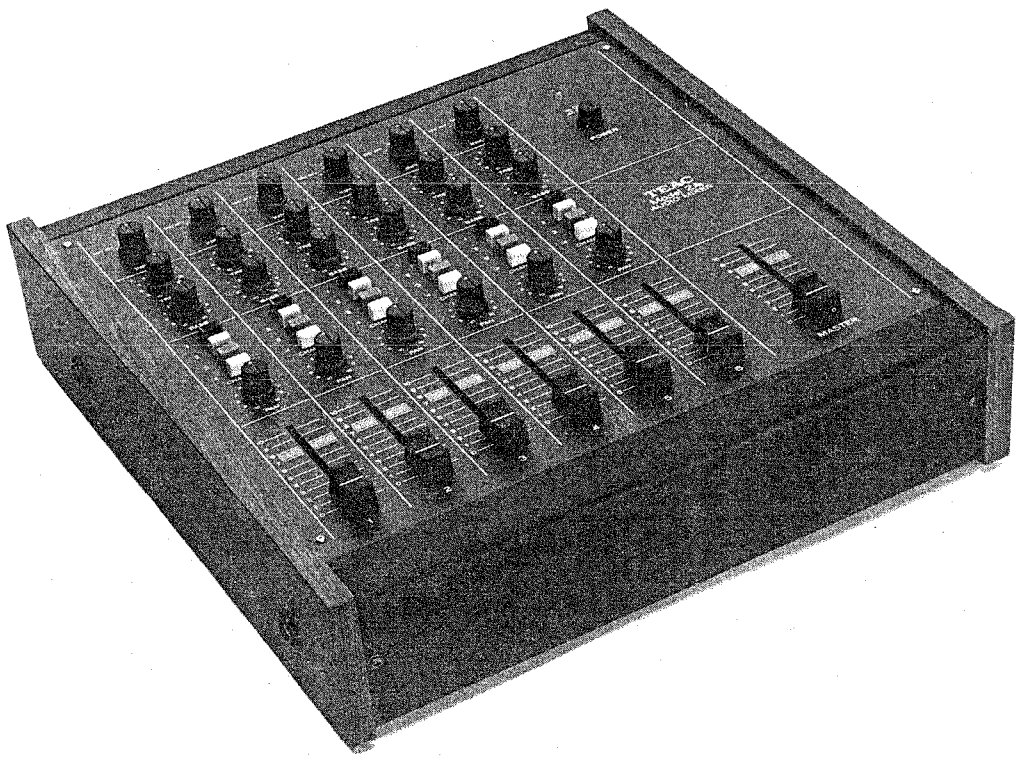
TEAC®

SERVICE GUIDE

Model-2A

Audio Mixer



TEAC CORPORATION

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1. GENERAL INTRODUCTION

The TEAC M-2A Audio Mixer is a versatile 6 input/4 output mixer which is designed to expand the creative possibilities of true multichannel recording. Each input channel has separate input selectors, tone controls, channel assign selectors with pan, and input faders. There is also a MASTER output fader control. We invite you to read through the M-2A Operation Manual for specific operating instructions and system connection information. The service guide is written so that the M-2A can be checked out as an independent unit using common test equipment.

If any of the adjustments or repairs seem too complicated or are difficult for you to accomplish, please contact the nearest TEAC Factory Service Department or write directly to a TEAC office, the addresses of which are printed on the back cover.

PARTS ORDERING INFORMATION

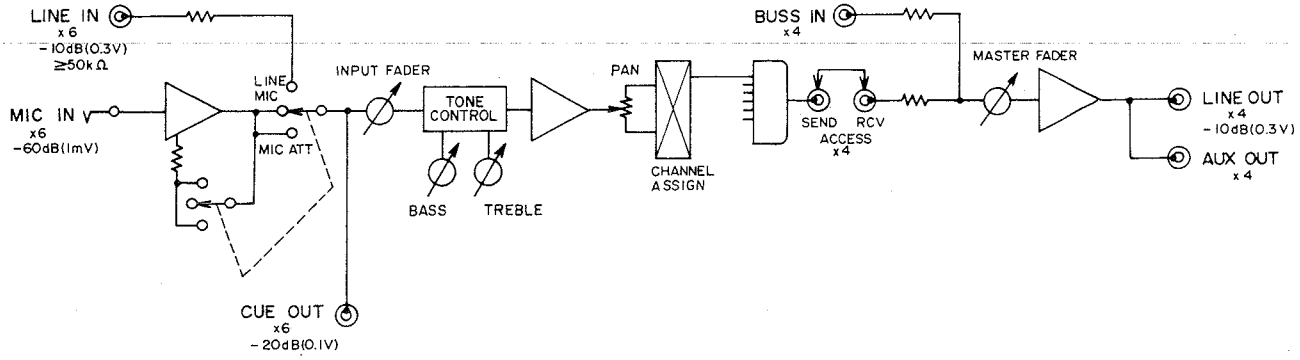
Spare parts are available through your nearest TEAC Authorized Service Center or directly from the TEAC office, the address of which is written on the back cover. When ordering parts, always include the following information:

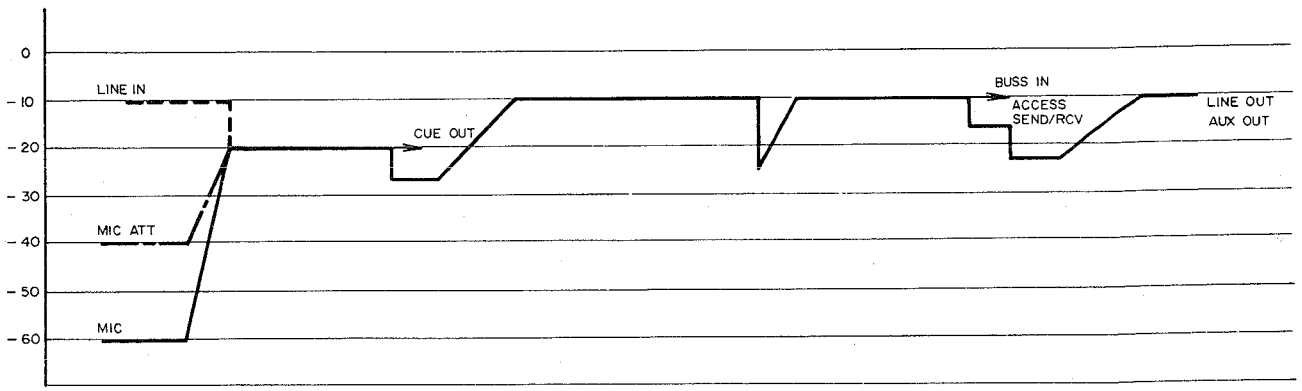
1. MODEL
2. REF. NO.
3. PARTS NO.
4. DESCRIPTON
5. UNIT SERIAL NO.
6. MANUAL CODE NO.

NOTICE REGARDING PARTS ORDERS

1. Do not order by only REF. NO.
2. In some instances, individual minor parts are not available. In such a case, the entire assembly including the part requested will be sent to you.
3. Parts are identical between the different models with the exceptions as coded by the designations in the REMARKS column.
4. PC boards are shown viewed from component side, and foil side is made visible through the PC board. If the PC board has components mounted on both sides, the side having the greater number of components will be shown viewed from the top.
5. To understand shape coding of assembling hardwares in the exploded views, ASSEMBLING HARDWARE CODING LIST is provided on page 7.

2. BLOCK DIAGRAM AND LEVEL DIAGRAM

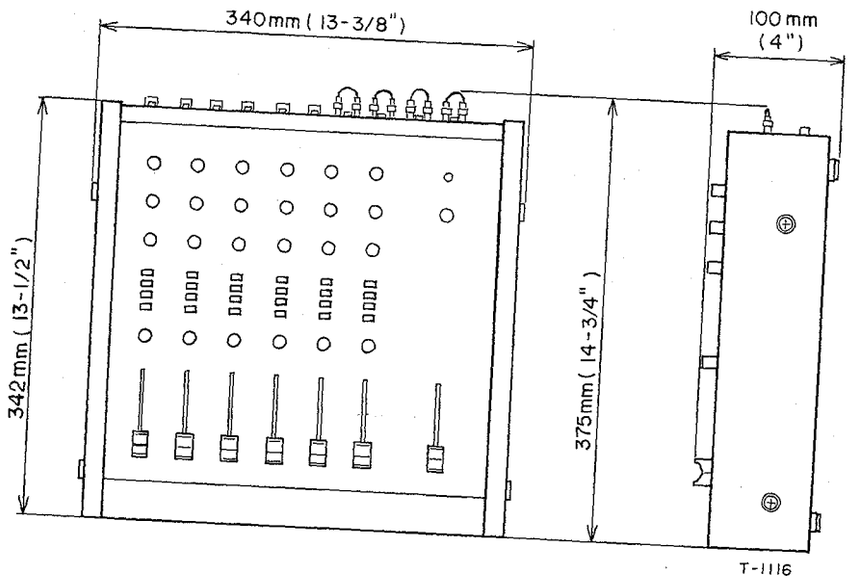




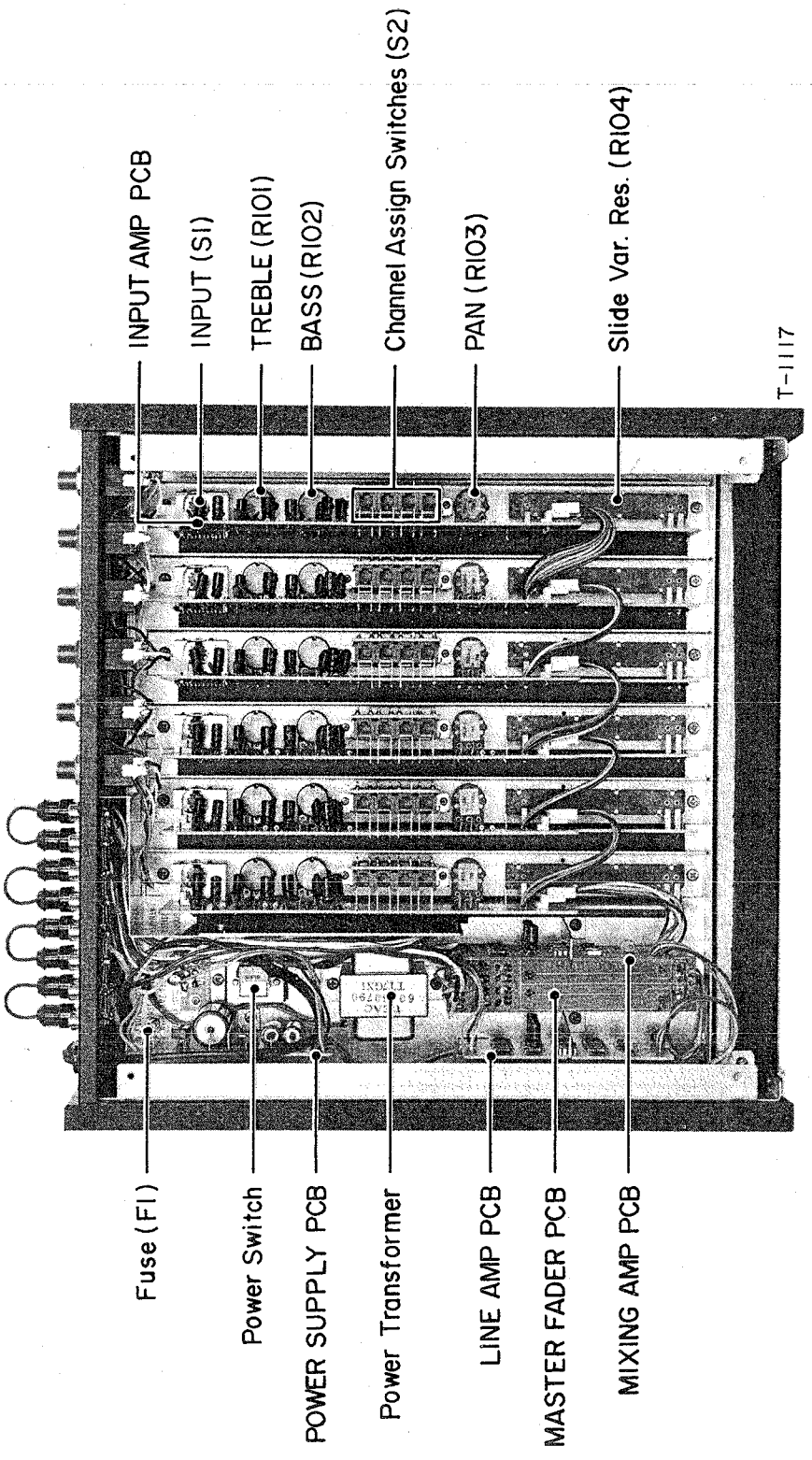
3. SPECIFICATIONS

1. 6 Input/4 Output	
2. Input Selector	MIC ATT/MIC/LINE
3. Mic Input	
1) Mic impedance	150Ω ~ 10KΩ
2) Input impedance	50KΩ or higher
3) Input level	−60 dB, Hi-Z input
4. Line Input	
1) Line impedance	20KΩ or higher
2) Input level	−10 dB (0.3V)
5. Line Output/Aux. Output	
1) Load impedance	10KΩ or higher, unbalanced
2) Output level	−10 dB (0.3V)
6. Signal to Noise Ratio	
(Overall – input to output)	
1) One input	Greater than 62 dB, WTD
2) 6 inputs	Greater than 55 dB, WTD
7. Frequency Response	30 Hz ~ 20 KHz, ±2 dB
8. Tone Control	
1) Treble control	Variable ±12 dB
2) Bass control	Variable ±12 dB
9. Crosstalk	Greater than 50 dB
10. Overall Distortion (Input to output)	0.1% THD maximum, at nominal −10 dB output
11. Fader Attenuation	Greater than 60 dB
12. Cue Output	
1) Load impedance	Greater than 50KΩ
2) Level	−20 dB (0.1V) with nominal input
13. Buss Input	
1) Input impedance	15KΩ
2) Nominal level	−10 dB (0.3V)
14. Accessory Send/Receive	
1) Send load impedance	Greater tha 10KΩ
2) Nominal send level	−10 dB (0.3V)
3) Receive impedance	15KΩ
4) Nominal receive level	−10 dB (0.3V)
15. Power Requirements	117V A.C., 60 Hz, 5W
16. Weight	13.2 lbs.

*Specifications subject to change without notice.

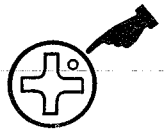


4. PARTS LOCATION



5. ASSEMBLING HARDWARE CODING LIST

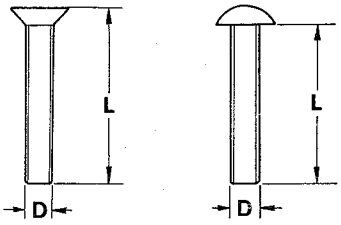
All screws conform to ISO standards, and have cross-recessed heads, unless otherwise noted.
ISO screws have the head inscribed with a point as in the figure to the right.



FOR EXAMPLE:

B M 3 x 6

- Length in mm (L)
- Diameter in mm (D) *
- Metric System
- Nomenclature

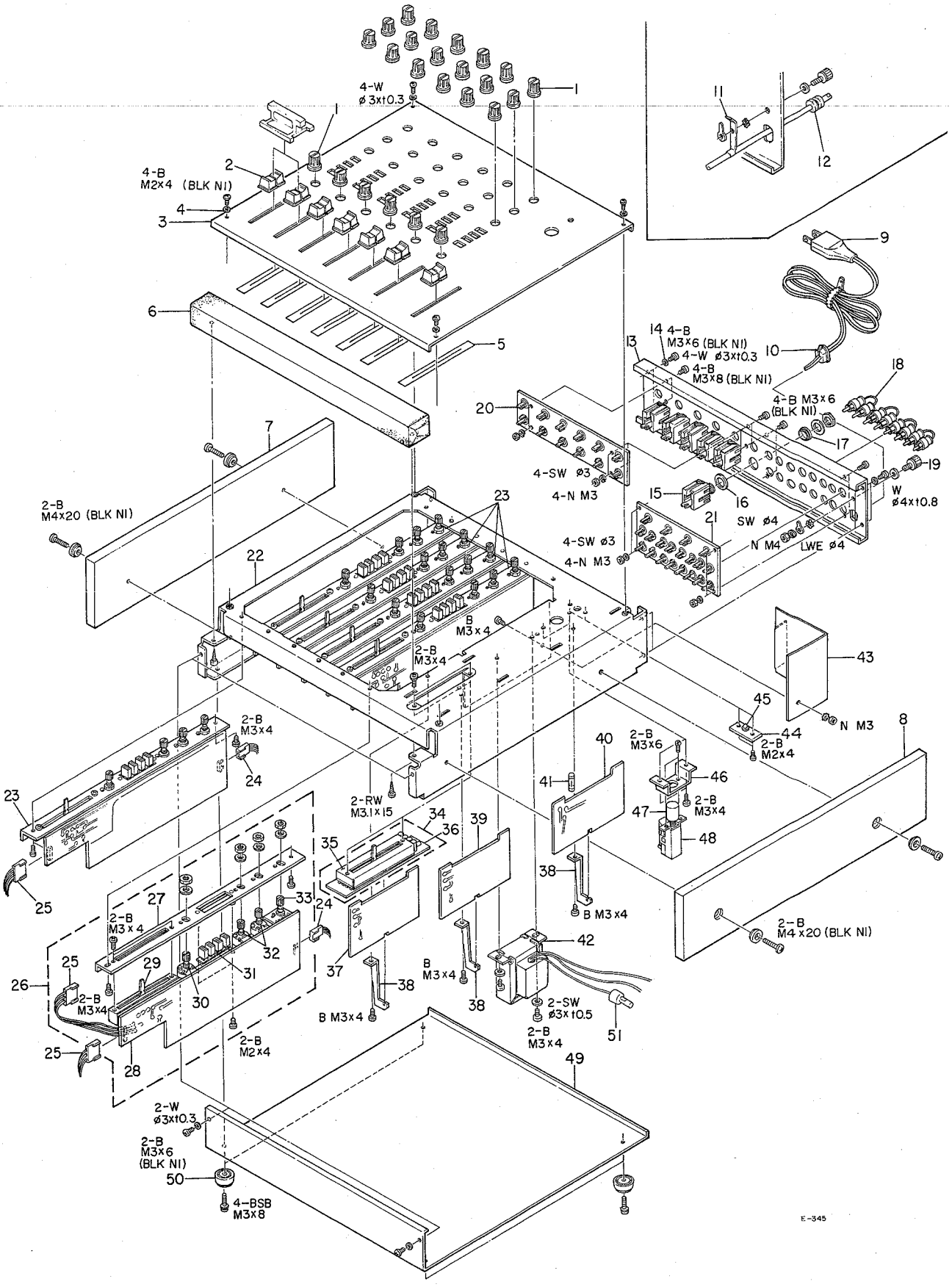


* Inner dia. for washers and nuts

	Code	Name	Type
MACHINE SCREW	R	Round Head Screw	
	P	Pan Head Screw	
	T	Stove Head Screw (Truss)	
	B	Binding Head Screw	
	F	Flat Countersunk Head Screw	
	O	Oval Countersunk Head Screw	
WOOD SCREW	RW	Round Head Wood Screw	
	FW	Flat Countersunk Wood Screw	
	OW	Oval Countersunk Wood Screw	
SEMS SCREW	BSA	Binding Head SEMS Screw(A Type)	
	BSB	Binding Head SEMS Screw(B Type)	
	BSF	Binding Head SEMS Screw(F Type)	
	PSA	Pan Head SEMS Screw(A Type)	
	PSB	Pan Head SEMS Screw(B Type)	

	Code	Name	Type
TAPPING SCREW	BTA	Binding Head Tapping Screw(A Type)	
	BTB	Binding Head Tapping Screw(B Type)	
	RTA	Round Head Tapping Screw(A Type)	
	RTB	Round Head Tapping Screw(B Type)	
SETSCREW	SF	Hex Socket Setscrew(Flat Point)	
	SC	Hex Socket Setscrew(Cup Point)	
	SS	Slotted Socket Setscrew(Flat Point)	
WASHER	E	E-Ring (Retaining Washer)	
	W	Flat Washer(Plain)	
	SW	Lock Washer(Spring)	
	LWI	Lock Washer (Internal Teeth)	
	LWE	Lock Washer (External Teeth)	
	TW	Trim Washer (Countersunk)	
NUT	N	Hex Nut	

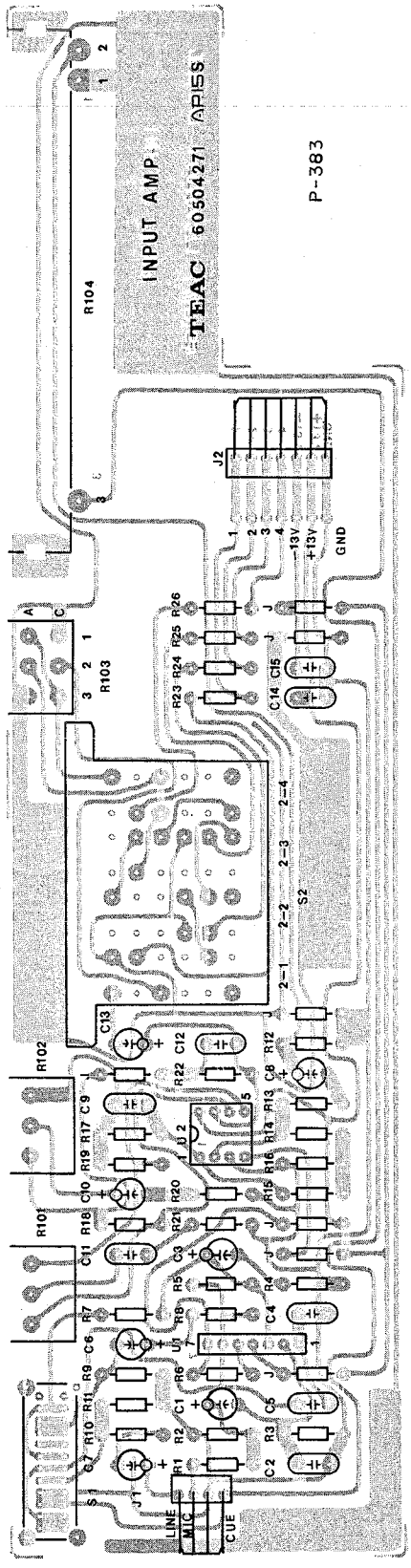
6. EXPLODED VIEW AND PARTS LIST



REF. NO.	PARTS NO.	DESCRIPTION	REMARKS
1	60060160	Knob, B-15S	
2	60060170	Knob, Slide Var. Res.	
3	60362210	Panel, Front Dress	
4	60030230	Washer, Mylar	
5	60530140	Cover, Var. Res. Dust	
6	60382610	Pad, Arm Rest	
7	60374190	Sideboard, L	
8	60374200	Sideboard, R	
9	51280340	Cord, AC Power	JAPAN
	50471661	Cord, AC Power	GENERAL EXPORT, U.S.A.
	60490960	Cord, AC Power	CANADA
	60491250	Cord, AC Power	EUROPE
	60491320	Cord, AC Power	U.K.
	60491180	Cord, AC Power	AUSTRALIA
10	50276810	Strain Relief, AC Power Cord	JAPAN, GENERAL EXPORT, EUROPE, U.S.A.
11	60372200	Strain Relief, AC Power Cord	AUSTRALIA, U.K., CANADA
12	50323011	Bushing, Rubber	
13	60362220	Panel, Rear	
14	16496057	Washer	
15	60520370	Jack, 2-cond. Phone	
16	50272620	Washer, Insulating; B	
17	60030210	Spacer, Jack	
18	60490520	Cable, Strapping	
19	50454071	Post, GND	
20	60521290	Board, RCA Pin Jack; A	
21	60521300	Board, RCA Pin Jack; B	
22	60374100	Chassis, Main	
23	60853870-01	Module, INPUT	
24	60491780	Cable, A (w/connector)	
25	60491790	Cable, B (w/connector)	
26	60853870-02	Module, INPUT (w/connector)	
27	60374150	Frame Assy, Unit	
28	60504271	Input Ampl. PC Board	
29	60412080	Var. Res., Slide 10k ohm - A	
30	60421040	Var. Rec., Dual 5k ohm - A, C	
31	60514280	Switch, Push	
32	60421030	Var. Res., 50k ohm - W	
33	60510690	Switch, Rotary	
34	60853910	MASTER FADER Assy	
35	60412090	Var. Res., 4-gang Slide 10k ohm - A	
36	60504311	PC Board, MASTER FADER	
37	60853880	PC Board Assy, MIXING AMPL.	
38	60371820	Clamp, PC Board	
39	60853890	PC Board Assy, LINE AMPL.	
40	60853900	PC Board Assy, POWER SUPPLY	
41	50411310	Fuse, 250V 1A	U.S.A., CANADA
	50411410	Fuse, 250V 1A	AUSTRALIA, U.K., EUROPE
	50411010	Fuse, 250V 1A	JAPAN
42	60400790	Transformer, Power	JAPAN, CANADA, U.S.A.
	60400800	Transformer, Power	AUSTRALIA, U.K., EUROPE
43	60374400	Plate, Shield	
44	60504321	PC Board, LED	
45	60501550	LED	
46	60374140	Bracket, Power Push Switch	
47	50252320	Button, Push Switch; A	
48	51340180	Switch, Power Push	
49	60374180	Plate, Bottom	
50	55040500	Foot	
51	50332880	Cap, Insulating	

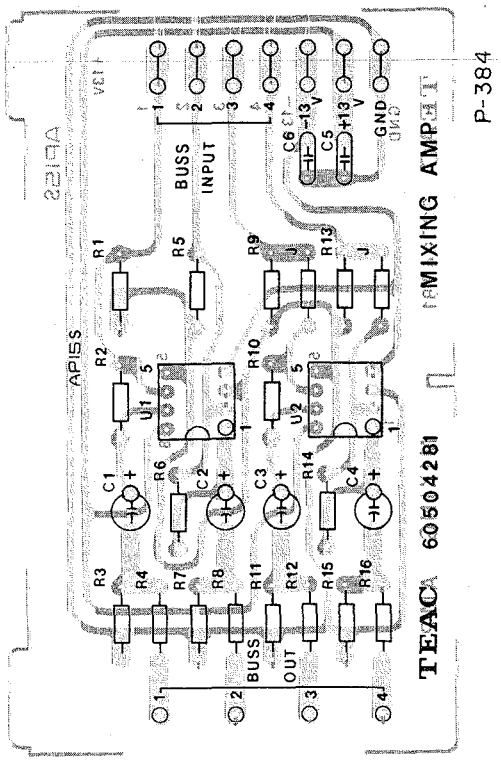
7. PC BOARDS (Diagrams & Parts List)

1. INPUT MODULE PC BOARD ASSY



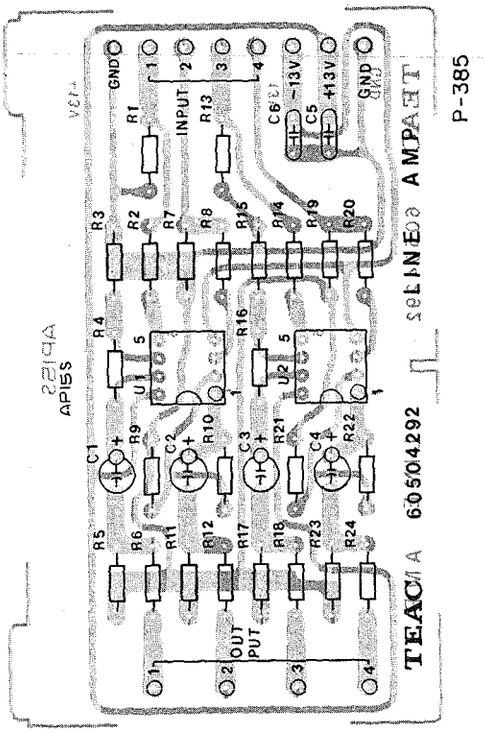
REF. NO.	PARTS NO.	DESCRIPTION
	60853870-01	Input Module
	60853870-02	Input Module (w/connector)
	60504271	PC Board
		IC's
U1	60486240	TA7136P
U2	60486260	RC4558D-D
		CARBON RESISTORS
		All resistors are rated ±5% tolelance and ¼ watt.
R1		100 ohm
R2, R3		100k ohm
R4		1k ohm
R5		100k ohm
R6		82k ohm
R7		10k ohm
R8		100 ohm
R9		100k ohm
R10		18k ohm
R11~R13		100k ohm
R14		91k ohm
R15		7.5k ohm
R16		1k ohm
R17~R19		10k ohm
R20, R21		3.3k ohm
R22		10k ohm
R23~R26		22k ohm
		CAPACITORS
C1	60430160	Elec. 22 mfd 10V
C2	50547420	Dip. Mica 47 pfd 50V
C3	60430180	Elec. 47 mfd 10V
C4	50547420	Dip. Mica 47 pfd 50V
C5	50547400	Dip. Mica 10 pfd 50V
C6~C8	60430160	Elec. 22 mfd 10V
C9	60445550	Mylar 0.1 mfd 50V
C10	60430180	Elec. 47 mfd 10V
C11	60445210	Mylar 0.0068 mfd 50V
C12	60445550	Mylar 0.1 mfd 50V
C13	60430160	Elec. 22 mfd 10V
C14, C15	60440050	Ceramic 0.01 mfd 50V
		VARIABLE RESISTORS
R101, R102	60421030	50k ohm - W
R103	60421040	Dual, 5k ohm - A, C
R104	60412080	Slide, 10k ohm - A
		MISCELLANEOUS
S1	60510690	Switch, Rotary
S2	60514280	Switch, Push
	60500082	PC Board, Push Switch
J1	60522820-04	Connector, 4
J2	60522820-07	Connector, 7
P2	60491790	Cable, B (w/connector)
	60374150	Bracket Assy, Module
J		Jumper (7 used)

2. MIXING AMP PC BOARD ASSY



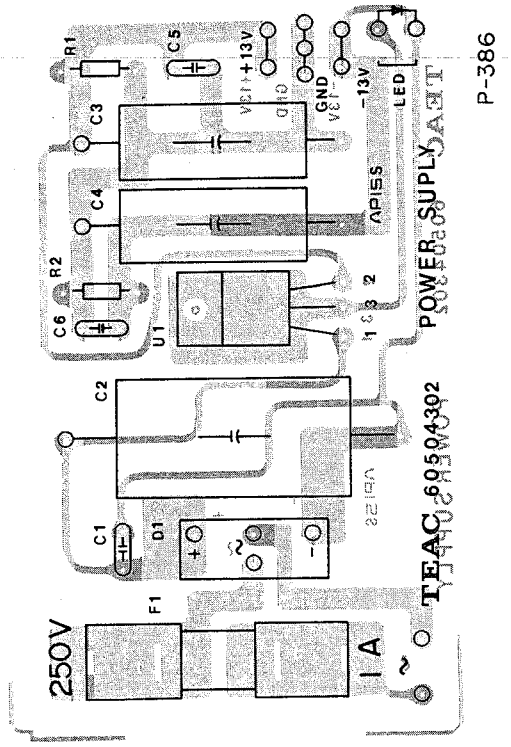
REF. NO.	PARTS NO.	DESCRIPTION		
	60853880	PC Board Assy		
	60544280	PC Board		
		IC's		
U1, U2	60486070	RC4558DN		
		CARBON RESISTORS		
		All resistors are rated ±5% tolerance and ¼ watt.		
R1		220k ohm		
R2		22k ohm		
R3		47k ohm		
R4		100 ohm		
R5		220k ohm		
R6		22k ohm		
R7		47k ohm		
R8		100 ohm		
R9		220k ohm		
R10		22k ohm		
R11		47k ohm		
R12		100 ohm		
R13		220k ohm		
R14		22k ohm		
R15		47k ohm		
R16		100 ohm		
		CAPACITORS		
C1~C4	60430160	Elec.	22 mfd	10V
C5, C6	60440050	Ceramic	0.01 mfd	50V
		MISCELLANEOUS		
J		Jumper		

3. LINE AMP PC BOARD ASSY



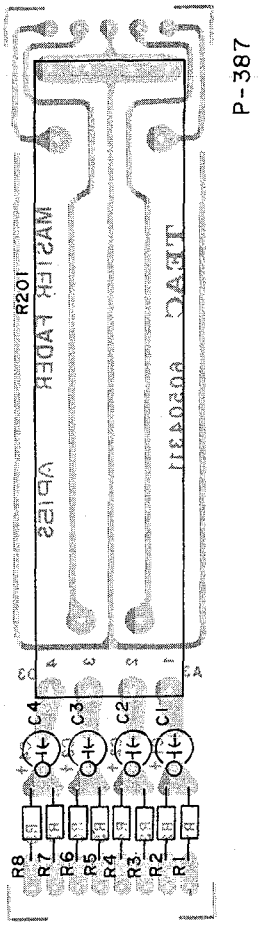
REF. NO.	PARTS NO.	DESCRIPTION
	60853890	PC Board Assy
	60504291	PC Board
		IC's
U1, U2	60486070	RC4558DN
		CARBON RESISTORS
		All resistors are rated ±5% tolerance and ¼ watt.
R1		100k ohm
R2		1k ohm
R3		1.8k ohm
R4		6.2k ohm
R5		47k ohm
R6		100 ohm
R7		100k ohm
R8		1k ohm
R9		1.8k ohm
R10		6.2k ohm
R11		47k ohm
R12		100 ohm
R13		100k ohm
R14		1k ohm
R15		1.8k ohm
R16		6.2k ohm
R17		47k ohm
R18		100 ohm
R19		100k ohm
R20		1k ohm
R21		1.8k ohm
R22		6.2k ohm
R23		47k ohm
R24		100 ohm
		CAPACITORS
C1~C4	60430160	Elec. 22 mfd 10V
C5, C6	60440050	Ceramic 0.01 mfd 50V

4. POWER SUPPLY PC BOARD ASSY

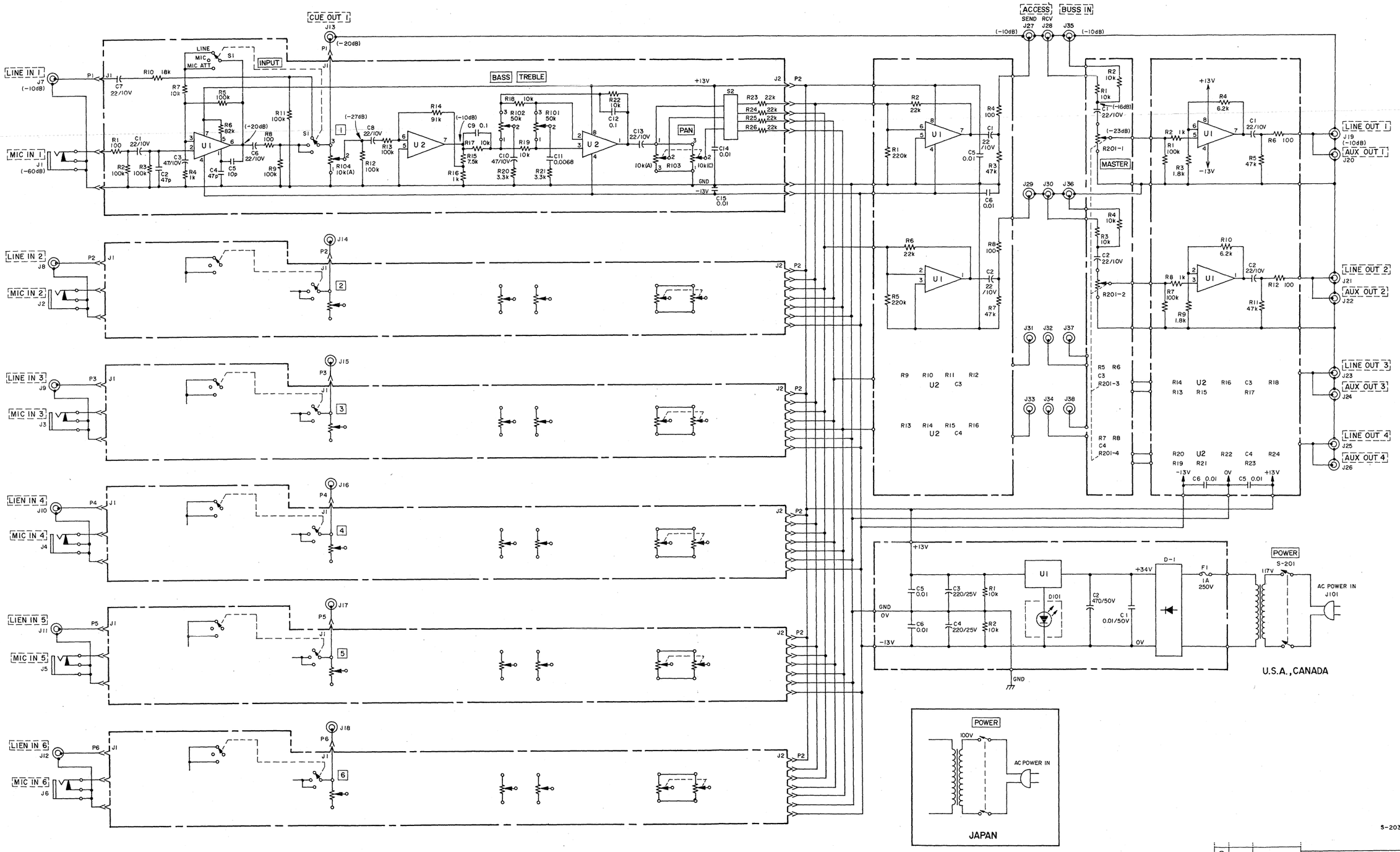


REF. NO.	PARTS NO.	DESCRIPTION
	60853900	PC Board Assy
	60504300	PC Board
U1	60486160	Regulator, FS7824M
D1	60483440	Diode, S1RBA20
	50411310	Fuse, 1A 250V (U.S.A., CANADA)
	50411410	Fuse, 1A 250V (AUSTRALIA, U.K., EUROPE)
	50411010	Fuse, 1A 250V (JAPAN)
	60529010	Fuse Holder
R1, R2		Resistor, Carbon 10k ohm ¼W 5%
C1	60440050	Capacitor, Ceramic 0.01 mfd 50V
C2	50555560	Capacitor, Elec 470 mfd 50V
C3, C4	50555030	Capacitor, Elec 220 mfd 25V
C5, C6	60440050	Capacitor, Ceramic 0.01 mfd 50V

5. MASTER FADER PC BOARD ASSY



REF. NO.	PARTS NO.	DESCRIPTION
	60853910	Master Fader Assy
	60504311	PC Board
R201	60412090	Var. Res., 4-gang Slide 10k ohm - A
R1~R8		Resistor, Carbon 10k ohm ¼W 5%
C1~C4	60430160	Capacitor, Elec. 22 mfd 10V



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AUDIO MIXER

MODEL NO. **M-2A**

SHEET NO.

TEAC CORPORATION

8. INCLUDED ACCESSORIES

REF. NO.	PARTS NO.	DESCRIPTION	REMARKS
	60060380	Adaptor Knob, 2-gang	
	60090400	Model-2A Operation Manual	JAPAN
	60090410	Model-2A Operation Manual	All except JAPAN